

a material located on or in the hemocompatible surface, wherein the material comprises an artificial compound, a natural organic compound, or an inorganic compound, or a mixture thereof; and,

B1 a constituent of an outer layer of a blood cell, a mesothelial cell or a combination thereof.

sub D17 16. (New) The hemocompatible surface of Claim 15, wherein the hemocompatible surface comprises a surface of an animal organ, an animal organ part, a vascular system, or a combination thereof.

B2 17. (New) The hemocompatible surface of Claim 15, wherein the material comprises an oligosaccharide, a polysaccharide, or lipid portions of a glycoprotein, glycolipid, or proteoglycan obtained from outer layers of blood cells, mesothelial cells, or combinations thereof.

18. (New) The hemocompatible surface of Claim 15, wherein the material comprises heparan sulfate obtained from erythrocyte plasma membranes of animals or humans.

19. (New) The hemocompatible surface of Claim 15, wherein the material comprises oligosaccharide or polysaccharide portions of a proteoglycan, wherein the proteoglycan is hyaluronic acid, chondroitin sulfate, dermatan sulfate, heparan sulfate, or keratan sulfate, or a mixture thereof.

20. (New) The hemocompatible surface of Claim 15, wherein the material comprises glycophorins, glycosphingolipids, or combinations thereof.

21. (New) The hemocompatible surface of Claim 15, wherein the hemocompatible surface is non-thrombogenic, non-immunogenic or a combination thereof.

B2 22. (New) The hemocompatible surface of Claim 15, wherein the material comprises a high-molecular weight organic compound, a metal, a metal oxide, an alloy, a ceramic, a glass, a mineral, or a mixture thereof.

23. (New) An article, device, or material comprising the hemocompatible surface of Claim 15.

24. (New) A process for making a hemocompatible surface, comprising:
isolating a cell constituent from an outer layer of blood cells or mesothelial cells, wherein the cell constituent is a glycophorin, an oligosaccharide, a polysaccharide, a lipid portion of a glycoprotein, a lipid portion of a glycolipid, a lipid portion of a proteoglycan, or a combination thereof; and,
applying or incorporating the cell constituent, or combination thereof, on or in the surface of an article, a device, or a material to be contacted with bodily fluid or tissue by physical or chemical bonding means.

25. (New) The process of Claim 24, wherein the cell constituents of the outer layer of blood cells are isolated from whole blood or from cell fractions thereof.

26. (New) The process of Claim 24, wherein the cell constituents are isolated from erythrocytes, leucocytes, thrombocytes, or mixtures thereof.

BA 27. (New) The process of Claim 24, wherein the cell constituents of the outer layer of mesothelial cells are isolated from omentum, peritoneum, or organs.

28. (New) The process of Claim 24, wherein applying or incorporating the cell constituents on or in the surface comprises chemical immobilization, photoimmobilization, adhesion, drying, or a combination thereof.
